

IN THE SPECIFICATION:

In the paragraph beginning on page 5, line 17:

(1) According to at least one embodiment of the invention, there is provided a hinge including a tubular base part being attached to a main body or an open/closed body; a rotation body being attached to the main body or the open/closed body, which is not attached to the base part, and supported on side wall end parts of the base part opposed to each other for rotation, the rotation body having a cam part; a wedge body being reciprocatably housed in the base part and having a slope for coming in sliding contact with the cam part when the rotation body rotates; an elastic member being housed in the base part for urging the wedge body toward the side of the rotation body; a sliding contact face being formed on the side of the wedge body from a rotation axis of the rotation body on an inner wall of the base part and bent to a concave corresponding to a parallel move path of a line almost parallel with the rotation axis; and a sliding contact part being formed in the rotation body for coming in sliding contact with the sliding contact face when the rotation body rotates. According to the hinge, as the wedge body is urged toward the side of the rotation body by the elastic member, the moment in the opening direction is made to act on the open/closed body; in addition, the frictional force produced as the sliding contact part comes in sliding contact with the sliding contact face can act as the moment in the opening direction against the moment in the closing direction when the open/closed body is closed. Accordingly, the hinge makes it possible to prevent rapid drop of the open/closed body in the closing

direction thereof. Further, in the hinge, the sliding contact part and the sliding contact face come in sliding contact with each other in the base part for producing the frictional force required for braking, so that it is not necessary to provide the rotation body with any portion covering the upper end margin of the base part on the opening side thereof to produce a frictional force. Thus, the hinge makes it possible to miniaturize the rotation body.

In the paragraph beginning on page 7, line 1:

(2) The hinge of at least one embodiment of the invention is characterized by the fact that the sliding contact part is formed in the proximity of the tip of the cam part. If the sliding contact part is formed in the proximity of the tip of the cam part, the distance between the sliding contact part and the rotation axis of the rotation body can be lengthened. If the distance is lengthened, the moment in the opening direction of the open/closed body can be increased as the same frictional force is applied. Therefore, a heavier open/closed body can be braked as compared with a hinge wherein the distance between the sliding contact part and the rotation axis is short. Conversely, the open/closed body of the same weight can be braked with a smaller hinge as compared with the hinge wherein the distance between the sliding contact part and the rotation axis is short. Thus, according to the hinge of the embodiment invention, the shape can be furthermore miniaturized.

In the paragraph beginning on page 7, line 17:

(3) The hinge of at least one embodiment of the invention is characterized by the fact that the wedge body is pressed into the base part. According to the hinge, when the open/closed body is closed, the frictional force occurring between the wedge body and the base part gives the moment in the opening direction to the rotation body, so that rapid drop of the open/closed body in the closing direction thereof can be furthermore prevented.

In the paragraph beginning on page 7, line 24:

(4) The hinge of at least one embodiment of the invention is characterized by the fact that the sliding contact face and the sliding contact part are not pressed against each other when the open/closed body is in a fully closed position or in a fully open position. According to the hinge, the sliding contact part is not pressed and does not become elastically deformed in the fully closed position or in the fully open position, so that needless degradation of the sliding contact part can be prevented.

In the paragraph beginning on page 8, line 7:

(5) The hinge of at least one embodiment of the invention is characterized by the fact that the distance from the rotation axis to an arbitrary point on the sliding contact face varies so that a frictional force occurring between the sliding contact part and the sliding contact face varies in response to the rotation angle of the

rotation body. The hinge makes it possible to vary the frictional force in response to the angle of the open/closed body.

In the paragraph beginning on page 8, line 15:

(6) According to at least one embodiment of the invention, there is provided an image input/output apparatus including a first housing for housing a printing unit; a second housing being placed on the top of the first housing for housing an image read unit; and the hinge as described above for swingably joining the second housing to the first housing. According to the image input/output apparatus, the second housing and the first housing can be joined by the small hinge while preventing rapid drop of the second housing in the closing process.

In the paragraph beginning on page 8, line 24:

(7) According to at least one embodiment of the invention, there is provided an image input/output apparatus including a first housing having a tube part being extended like a tube in a bottom direction from an opening formed in a ceiling, the first housing for housing a printing unit; a second housing being placed on the top of the first housing for housing an image read unit; and a hinge for swingably joining the second housing to the first housing, the hinge having a base part being fitted into the tube part, a rotation body being attached to the second housing and supported on the base part for rotation, and urging device for adding a rotation force to the rotation body in a direction of bringing the second housing

away from the first housing and adding a rotation force in the opposite direction to the rotation body to the base part. According to the image input/output apparatus, the base part is inserted into the tube part and is reinforced. Thus, if the rotation force in the opposite direction to the rotation body 11 is added to the base part 14, breakage or warpage is hard to occur. Therefore, a fix part to reinforce the base part need not be used. Thus, according to the image input/output apparatus, the structure can be simplified.

In the paragraph beginning on page 26, line 4:

FIG. 9 is a sectional view of the periphery of the opening 241 of the multifunction processing machine 204. The printer housing 202 is formed with a tube part 244 extended like a tube from the opening 241 formed in the ceiling to the bottom of the printer housing 202. The tube part 244 is formed with a step 245 overhanging to the inside and supporting the base part 214 with the bottom of the base part 214 abutted against the step 245. The inner peripheral shape of the tube part 244 in the proximity of the step 245, the inner peripheral shape on the side of the opening 241 from the step 245 is formed as the same shape as the outer peripheral shape in the proximity of the bottom of the base part 214, and the bottom of the base part 214 is fitted into the tube part 244. Accordingly, the tube part 244 reinforces the base part 214 so that the base part 214 is not broken or warped if a rotation force in the opposite direction to the rotation body 211 is added to the base part 214. As shown in the figure, the bottom of the tube part 244 extends to the bottom of the printer housing 202 and is screwed to the printer housing 202.

Accordingly, the tube part 244 can reinforce the base part 214 more firmly as compared with the case where the bottom of the tube part 244 is not fixed to the printer housing 2. In the embodiment, the bottom of the tube part 244 is fixed to the bottom of the printer housing 202. However, unless the bottom of the tube part 244 is fixed to the printer housing 202, if the tube part 244 has a strength capable of reinforcing the base part 214 so that the base part 214 is not warped or broken, the bottom of the tube part 244 need not be fixed to the printer housing 202. In the embodiment, the bottom of the tube part 244 is fixed to the printer housing 202, but may be held.